

BEFORE THE
Federal Communications Commission
WASHINGTON, D.C. 20554

In the Matter of)	
)	
Flexibility for Delivery of Communications by)	IB Docket No. 01-185
Mobile-Satellite Service Providers in the)	
2 GHz Band, the L-Band, and the 1.6/2.4 GHz Band))	
)	
Amendment of Section 2.106 of the Commission's)	ET Docket No. 95-18
Rules to Allocate Spectrum at 2 GHz for Use by)	
The Mobile-Satellite Service)	

To: The Commission

REPLY COMMENTS OF TRW Inc.

TRW Inc. ("TRW"), by its attorneys and pursuant to Sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415 and 1.419, hereby replies to the comments filed in the above-captioned proceeding. As discussed further below, TRW believes that the markedly different, but fundamental changes in spectrum allocation proposed respectively by satellite and terrestrial interests are unwarranted. The Commission should not lose sight of the fact that it has allocated spectrum for Mobile-Satellite Service ("MSS") for very sound public policy reasons, that several systems are now operating, and that more have only recently been licensed. Under these circumstances, the only appropriate course is to allow these systems to develop as planned. Even if the Commission were to authorize terrestrial use of the MSS bands in some manner, it would only be appropriate to allow such service on a truly ancillary basis. In other words, there could be no terrestrial service offering by a licensee that is not also operating or duly authorized

to operate an MSS system. Moreover, the terrestrial service offerings made by an MSS operator could neither cause harmful interference to nor claim protection from harmful interference caused by the MSS operations of another licensee.

Statement of Interest

As the Commission is aware, TRW has been a frequent participant in a variety of satellite and spectrum allocation proceedings, and is not only a manufacturer of system payloads, but an FCC licensee in both satellite and terrestrial bands. It has recently been authorized in the second Ka-band processing round to launch and operate four geostationary (“GSO”) Fixed-Satellite Service facilities, and is an applicant for authority to build a companion Ka-band non-geostationary (“NGSO”) network as well. TRW is also an applicant to employ GSO and NGSO payloads in V-band spectrum as part of its planned hybrid Ka-/V-band system, and holds approximately 100 licenses in the fixed service bands at 38.6-40 GHz. TRW also has a long history of participation in MSS proceedings, and was one of the initial licensees authorized to provide MSS service in the 1.6/2.4 GHz bands; however, when business circumstances made it clear that demand would no longer justify implementation its MSS system, TRW chose to relinquish its license.

Discussion

Those filing initial comments in this proceeding have focused on proposing mechanisms for the actual implementation of an ancillary terrestrial component (“ATC”) in MSS bands, almost to the exclusion of providing a justification for change in the current rules and policies applicable to the affected bands. Although many satellite industry commenters have supported changes in the current rules, there is far from uniform support within the satellite industry for modification of the existing regulatory framework.

TRW does not believe that any change in current rules to encourage terrestrial use is warranted. Inasmuch as the 2 GHz band has only recently been allocated for MSS¹ and the initial licenses were awarded just four months ago,² there is no sound reason to consider any dramatic alterations in the current regulatory scheme. This is particularly so in view of the fact that both applicants and non-applicants in this band acted in reliance on the historically sound assumption that the spectrum would be used for the purposes proposed in the rulemaking proceeding. The Commission should not fundamentally change an allocation after the fact for the exclusive benefit of licensees that stated their intent to build facilities that they are now fully licensed to construct. To do so would set a bad precedent for other services, including FSS and BSS, where licensees are now building businesses based on spectrum use expectations consistent with their original licensing.

Satellite licensees campaigned vigorously for the licensing of space systems through traditional assignment mechanisms, rather than through competitive bidding, due to the impossible task of valuing auctioned spectrum on a country-by-country basis for implementation of global services. The valuable rights satellite operators have been granted for ‘free’ are, however, neither permanent, nor without obligation – satellite licensees owe it to the American public to use these rights, as authorized, or to return them. Only when spectrum has been purchased in auction should the ‘owner’ rightfully expect the kind of flexibility sought by the petitioners here. This is not to say that operating systems should not be granted flexibility to

¹ *Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band*, 15 FCC Rcd 16127 (2000) (“2 GHz Order”).

² *See The Boeing Company*, DA 01-1631 (IB, rel. July 17, 2001); *Celsat America, Inc.*, DA 01-1632 (IB, rel. July 17, 2001); *Constellation Communications Holdings, Inc.*, DA 01-1633 (IB/OET, rel. July 17, 2001); *Globalstar, L.P.*, DA 01-1634 (IB/OET, rel. July 17, 2001); *ICO Services Limited*, DA 01-1635 (IB/OET, rel. July 17, 2001); *Iridium LLC*, DA 01-1636 (IB, rel. July 17, 2001); *Mobile Communications Holdings, Inc.*, DA 01-1637 (IB/OET, rel. July 17, 2001); *TMI Communications and Company*, DA 01-1638 (IB, rel. July 17, 2001).

expand their capabilities if it can be done without undue burden, but only in the context of improving upon the fulfillment of their original commitment in obtaining the satellite license.

Licensees cannot reasonably be permitted to promote specific operating requirements for a service, and then successfully seek dramatic changes in these rules immediately after licensing has been completed. At the same time, the current proceeding certainly does not justify the draconian and confiscatory alternative approach that is advocated by certain terrestrial wireless parties,³ which seek to poach additional valuable spectrum in urban areas, while continuing to ignore the vastly underutilized spectrum in less profitable rural markets that are relatively better served by satellites.

In the event that the Commission does nonetheless find reason to grant some additional flexibility to current MSS licensees, it should do so only within carefully defined parameters. It should do nothing in implementing ATC that would undermine the sound policy determinations that underlie either its very recently established MSS allocation and service rules for the 2 GHz bands, or the equally appropriate decisions made in establishing MSS in the upper L-band and in the 1.6/2.4 GHz bands.

Consistent with these principles, any establishment of an ATC should be on a truly “ancillary” basis – as an integral part of the primary MSS operations in the band, not as a separate service. This approach is appropriate because the Commission has consistently concluded that satellite services that employ ubiquitous earth terminals, such as MSS, cannot share spectrum with similarly-configured terrestrial services.⁴ Because the Commission has

³ See, e.g., Comments of the Cellular Telecommunications & Internet Association at 8 *et seq.* (filed October 22, 2001); Comments of the Rural Cellular Association at 4-5 (filed October 22, 2001); Comments of AT&T Wireless Services, Inc. at 11-13 (filed October 22, 2001); Joint Comments of Cingular Wireless LLC and Verizon Wireless at 20 *et seq.* (filed October 22, 2001).

⁴ See, e.g., *Amendment Of Parts 2 And 25 Of The Commission's Rules To Permit Operation Of NGSO FSS Systems Co-Frequency With GSO And Terrestrial Systems In The Ku-Band Frequency Range*, ET Docket No. 98-206, First Report And Order And Further Notice Of Proposed Rule Making, 16 FCC Rcd 4096 (¶ 279) (2000) (“We

already found strong public interest reasons for allocating the subject bands to MSS,⁵ any additional spectrum use that is permitted in these bands must be implemented only in a manner that is fully compatible with these operations and fully consistent with the established operating rules.

The Commission should thus adopt the policy that any service offered on an ancillary basis – literally as an auxiliary feature – can only be implemented as an aid to the primary service. This is the basis under which the Broadcast Auxiliary Service is licensed in context with a Broadcast license and in which terrestrial repeaters have been initially authorized in support of DARS satellites. In neither case does the service stand alone – to do so would violate the principle under which licensees were given ‘free’ access to auxiliary spectrum and undermine the proper functioning of the terrestrial spectrum auction process. In the context of MSS, therefore, terrestrial services in the same band should be pure extensions for coverage and not be allowed ultimately to complete connections through any means other than through MSS.

Accordingly, TRW believes that no change in existing rules is warranted. The Commission allocated spectrum to MSS based on sound public interest findings, and these systems should be permitted to develop as originally projected. Even if ATC is allowed in some fashion, only existing MSS licensees should be permitted to implement these ancillary links, and each should be required to do so consistent with its existing license obligations and as a purely

note that satellite and terrestrial systems share spectrum on a co-primary basis, but typically not for ubiquitous deployment.”); *Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite-Service Use*, 15 FCC Rcd 13430 (¶ 17) (2000); *Allocation and Designation of Spectrum for Fixed-Satellite Services in the 37.5 – 38.5 GHz, 40.5 – 41.5 GHz and 48.2 – 50.2 GHz Frequency Bands*, IB Docket No. 97-95, Report & Order, 13 FCC Rcd at 24656 (¶ 13) & 24650 (¶ 18)(1998).

⁵ *2 GHz Order*, 15 FCC Rcd at 16127 (¶ 1) (“2 GHz Order”). (“2 GHz MSS systems will . . . promote development of regional and global communications to unserved communities in the United States, its territories and possessions, including rural and Native American areas, as well as worldwide”).

auxiliary extension. While no entity could reasonably be required to deploy such capability, ATC could only be carried out in conjunction with a fully operational MSS network that complies with all applicable rules. A licensee should be deemed in compliance with the terms of its license only if it continues to meet all of its system milestones, and provides the degree of global service explicitly required under the Commission's rules upon completion. By adhering to these requirements, the Commission can continue to advance the goals of providing global mobile service coverage to rural and underserved areas, while at the same time providing MSS licensees with the flexibility that they may desire to ensure that their services are available to the widest possible range of users.

Respectfully submitted,

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